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NATIONAL SCIENCE FOUNDATION AUTHORIZATION ACT FOR FISCAL YEAR 1986

APRIL 15, 1985.—Ordered to be printed

Mr. DANFORTH, from the Committee on Commerce, Science, and Transportation, submitted the following

REPORT

[To accompany S. 903]

The Committee on Commerce, Science, and Transportation, having considered an original bill (S. 903) to authorize appropriations for the National Science Foundation for fiscal year 1986, and for other purposes, reports favorably thereon and recommends that the bill do pass.

PURPOSE OF BILL

The bill authorizes appropriations of $1,569,400,000 for the National Science Foundation (NSF) for fiscal year 1986.

BACKGROUND AND NEEDS

The NSF is an independent agency, established by the National Science Foundation Act of 1950 (Public Law 81-507). The Foundation is unique among Federal agencies in that its primary statutory mandate is to support nonbiomedical basic research in all fields of science and engineering, through grants and contracts to colleges, universities, and other research entities.

In fiscal year 1986, the Foundation will account for 17 percent of the total Federal support of basic research, and will provide 27 percent of Federal funding to academic institutions. In some disciplines (for example, pure mathematics and anthropology), the NSF is responsible for over 90 percent of the support for basic research in the universities.

Similarly, the NSF provides approximately three-quarters of this support for the earth and ocean sciences, and about one-third in

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other fields, including chemistry and electrical engineering. Not only does this money support fundamental research, but it also provides support for graduate and post-doctoral students in the early stages of their careers.

The NSF is divided into seven directorates: (1) mathematics and physical sciences (MPS), (2) engineering (ENG); (3) biological, behavorial and social sciences (BBS); (4) astronomical, atmospheric, earth and ocean sciences (AAEO); (5) science and engineering education (SEE); (6) scientific, technological and international affairs (STIA); and (7) program development and management (PDM).

Of these seven, the first four are considered "research" directorates. The fifth, SEE, was reestablished in 1983 to provide oversight of, and continuity for, the Foundation's activities in science education, which account for about 6 percent of the NSF's total budget. The sixth, STIA, is responsible for joint coordination with the research directorates of programs that transcend the disciplines, such as programs for minority and women scientists, and international programs. The seventh, PDM, is concerned with internal NSF management. There are numerous programmatic areas within the research directorates, Each of these programs is reviewed every 3 years by an oversight panel of external reviewers.

The National Science Board (NSB), the board of directors for the NSF, establishes policy for the Foundation. The NSB, the Director, the Deputy, and four of the six Assistant Directors of the NSF are Presidential appointees.

PROGRAMS OF THE NATIONAL SCIENCE FOUNDATION

Mathematical and physical sciences

The goal of the MPS activity is to develop a fundamental understanding of the physical laws that govern the universe in which we live, and to assure that the next generation of scientists will receive quality training. To further this goal, research activities are supported in mathematics, computer science, physics, chemistry, and materials science.

Engineering

The ENG activity seeks to improve understanding of the fundamental questions involved in engineering research. The Engineering Directorate has been restructured to achieve better balance between established and emerging disciplines of engineering, to give special emphasis to areas in which shortages of trained personnel exist, and to strengthen links between academic engineering and industry.

Biological, behavioral, and social sciences

The goal of the BBS activity is to increase knowledge about life forms and life processes through research on biological and social phenomena. Projects supported range from studies of the fundamental molecules of living organisms to research into the complex relationships between human populations and their social and economic institutions and organizations.

Astronomical, atmospheric, earth, and ocean sciences

The AAEO activity aims to increase understanding of the physical nature of the universe; advance knowledge of the behavior of the earth's atmosphere; provide further insight into the physical and chemical composition of the earth and its geologic history; improve knowledge of the composition of the world's oceans, their dynamic properties, and the living creatures they support; and advance knowledge of natural phenomena and processes in the Artic. In addition to offering research support to individual scientists in these fields, AAEO also supports major research facilities such as the National Center for Atmospheric Research and six National Astronomy Centers.

Science and engineering education

The mission of the SEE activity is to strengthen the quality of the Nation's science and engineering education, and help assure tomorrow's citizens an adequate basis of scientific knowledge for more productive living in a high-technology, information-intensive society. To this end, the Foundation supports (1) graduate fellowships designed to recognize and aid the Nation's most talented graduate students and prepare them to enter the science and engineering professions, and (2) precollege science and mathematics education activities to provide young people with high quality training in mathematics, science, and technology.

Scientific, technological, and international affairs

The STIA activity carries out essential Foundation responsibilities that cut across scientific and engineering communities. The STIA directorate encompasses programs designed to: support small high technology businesses; foster cooperative research and related activities between American and foreign scientists and institutions; support and conduct research on issues pertaining to science and technology policy; maintain an extensive national data base on scientific and technological activities and resources; and support and facilitate activities that cut across boundaries of discipline-oriented research, including increasing research opportunities for young investigators, women and minority scientists, and faculty from undergraduate institutions.

Program development and management

The objective of the PDM activity is to achieve the most effective management of NSF.

OTHER PROGRAMS

Advanced scientific computing

The NSF established the Office of Advanced Scientific Computing [OASC] in April 1984, to implement the Advanced Scientific Computing Program begun in 1983 by an NSF task force. Three supercomputer centers were opened on July 1, 1984: Purdue University, University of Minnesota, and Boeing Computer Services. On February 26, 1985, the Foundation announced its selection of four institutions to receive approximately $200 million over the next 5

years to establish and operate National Advanced Scientific Computing Centers. These centers will be started in 1985, in San Diego, CA; Urbana, IL; Ithaca, NY; and Princeton, NJ.

U.S. Antarctic program (USAP)

The USAP supports national efforts to maintain the Antarctic Treaty, ensure that the continent will continue to be used for peaceful purposes only, foster cooperative research to contribute to the solution of regional and worldwide problems, protect the environment, and ensure equitable and wise use of living and nonliving resources. The U.S. scientific research program, administered by the NSF, continues to be the principal expression of national interest and policy in Antarctica.

Legislative History

On March 20, 1985, the Subcommittee on Science, Technology, and Space held a hearing on the proposed NSF budget for fiscal year 1986. The Subcommittee heard testimony which covered the foundation's overall budget. Witnesses included the President's Science Advisor, the Director of the Foundation, and the President of the National Academy of Sciences.

On April 2, 1985, the Committee ordered to be reported favorably an original bill.

Estimated Costs

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

U.S. Congress,
Congressional Budget Office,
Washington, DC, April 8, 1985.

Hon. John C. Danforth,
Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate, Dirksen Senate Office Building, Washington, DC.

Dear Mr. Chairman: The Congressional Budget Office has prepared the attached cost estimate for the National Science Foundation Authorization Act for Fiscal Year 1986.

If you wish further details on this estimate, we will be pleased to provide them.

With best wishes,
Sincerely,

Rudolph G. Penner,
Director.

Congressional Budget Office—Cost Estimate

1. Bill number: Not yet assigned.
2. Bill title: National Science Foundation Authorization Act for Fiscal Year 1986.
3. Bill status: As ordered reported by the Senate Committee on Commerce, Science, and Transportation, April 2, 1985.

4. Bill purpose: This bill authorizes the appropriation of $1,568.4 million in fiscal year 1986 for various activities of the National Science Foundation (NSF). Of this total, $1,397.8 million is for research and related activities, $50.6 million is for science and engineering education, and $120.1 million is for the U.S. Antarctic program. Additionally, an appropriation not to exceed $1 million is authorized for payment of expenses incurred outside of the United States. This payment is to be made from excess foreign curriencies held by the Treasury.

This bill also makes a number of amendments to the National Science Foundation Act of 1950. The amendments with budget implications would remove the requirement that the President appoint four assistant directors; would provide indefinite authorization for the NSF to indemnify contractors in its ocean drillng program; and would allow the NSF to adjust the amount and terms of its Alan T. Waterman award.

5. Estimated cost to the Federal Government:

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Authorization level	1,569				
Estimated outlays	798	533	152	86	

The costs of this bill fall within budget function 250.

Basis of estimate: For the purposes of this estimate it was assumed that all funds would be appropriated prior to the beginning of fiscal 1986 and that obligations and disbursements would follow historical patterns. The indefinite extension of NSF authority to indemnify drilling contractors increases the potential liability of the federal government, beginning in fiscal year 1987, for claims resulting from drilling accidents under its ocean drilling program. NSF currently has a 200 million umbrella insurance package and the authority for indemnification provided in this bill would cover any claims in excess of that coverage. The amounts of any such claims cannot be predicted, though no claims have occurred to date in this program. The other amendments in this bill would result in no significant addition costs to the federal government.

6. Estimated cost to state and local governments: None.

7. Estimate comparison: None.

8. Previous CBO estimate: None.

9. Estimate prepared by: Paul M. DiNardo.

10. Estimate approved by: James L. Blum, Assistant Director for Budget Analysis.

Regulatory Impact Statement

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation:

The bill provides authorization of appropriations to the NSF for fiscal year 1986, and extends for 1 year existing programs supported by the Foundation. The bill confers no new regulatory authority

on the Foundation. Thus, implementation of the National Science Foundation Authorization Act for fiscal year 1986 will not increase Federal regulation of any individuals or businesses. Because there will be no increased Federal regulation, there will be no increased economic effect, effect on personal privacy, or additional paperwork from this act.

Section-by-Section Analysis

SECTION 1

Section 1 cites the short title as the "National Science Foundation Authorization Act for Fiscal Year 1986".

SECTION 2

Section 2 authorizes appropriations of $1,568,400,000 for fiscal year 1986 for the programs of the NSF in the following categories:

(1) Advanced Scientific Computing, $46,230,000.

(2) Astronomical, Atmospheric, Earth, and Ocean Sciences, $371,572,000.

(3) Biological, Behavioral, and Social Sciences, $271,612,000.

(4) Engineering, $169,796,000.

(5) Mathematical and Physical Sciences, $428,280,000.

(6) Scientific, Technological, and International Affairs, $38,360,000.

(7) Program Development and Management, $71,900,000.

(8) Science and Engineering Education, $50,550,000.

(9) United States Antarctic Program, $120,100,000.

(1) Advanced scientific computing

The fiscal year budget request for Advanced Scientific Computing is $46,230,000. This is an increase of $4,800,000, or 11 percent over the fiscal year 1985 current plan of $41,460,000. The increase will permit establishment of one additional national supercomputing center. The centers initiated in fiscal year 1985 will be fully operational. Experimentation with wideband communications networks will begin.

(2) Astronomical, atmospheric, earth, and ocean sciences

The fiscal year 1986 budget request for Astronomical, Atmospheric, Earth, and Ocean Sciences is $372,170,000. This is an increase of $20,400,000, or 5.8 percent, above the fiscal year 1985 current plan of $351,728,249. The Committee reduced this amount by $598,000, which it added to the PDM authorization to compensate for the disallowal of the proposed 5 percent reduction in salaries, as discussed below.

Activities under this directorate will reflect a major emphasis on earth sciences, which receive a 12 percent increase.

The AAEO increase will: provide an increase of $4,400,000 for continental lithosphere research; continue support for upgrading the computers at the national center for atmospheric research; and support global ocean studies and upgrading of shipboard equipment in the ocean sciences.

The Committee is encouraged by the progress made thus far in the newly revamped Ocean Drilling Program. Several other nations have joined in to support this important international ocean sciences endeavor. The Committee believes that if this program is to be successful, however, it is necessary to extend the program's indemnification authority. Therefore, language has been included in the bill to provide the Director with this authority.

The Committee notes that the VLBA remains the number one priority in ground-based astronomy research. Further, the Committee is aware that, although the project has moved forward, it has done so at a rate reduced from the original proposed schedule. The Committee endorses the budget request and urges the NSF to proceed with this important radio telescope as expeditiously as possible.

(3) Biological, behavioral, and social sciences

The fiscal year 1986 budget request for Biological, Behavioral, and Social Sciences is $272,050,000. This is an increase of $20,100,000, or 8 percent, over the fiscal year 1985 current plan of $251,967,000. The Committee reduced this amount by $438,000, which it added to PDM.

BBS activities in 1986 will place a special emphasis on biotechnology research, as reflected in plant biology work in the Molecular and Cellular Biology programs, in the Biotic Systems and Resources programs, in the chemistry of life processes work in Molecular Biology, and in postdoctoral fellowships in the plant sciences. Support for the Social and Economic Sciences is increased 19 percent over fiscal year 1985, primarily for economic research.

(4) Engineering

The fiscal year 1986 budget request for Engineering is $170,070,000. This is an increase of $20 million, or 13.3 percent, over the fiscal year 1985 current plan of $150,037,00. The Committee reduced this amount by $274,000, which it added to the PDM authorization.

In Fiscal year 1986 the program will emphasize:

1. Engineering Research Centers, for which it will allocate $25 million. These research centers will make real contributions to the competitiveness of U.S. industry and to the training of engineers.

2. Participation in the biotechnology initiative for which it will allocate $4,300,000.

(5) Mathematical and physical sciences

The fiscal year 1986 budget request for mathematical and physical sciences is $428,970,000. This figure represents an increase of $32.4 million, or 8.2 percent, over the fiscal year 1985 current plan of $396,622,000. The Committee reduced this amount by $690,000, which it added to the PDM authorization.

The increases in MPS apply across all disciplines. Special emphasis is given to the mathematical sciences, with a $7,100,000, or 15 percent, increase. Four million dollars of this increase will support graduate students and postdoctoral researchers in mathematics. The increase for MPS also permits: continued improvement of the Cornell Electron Storage Ring to improve beam luminosity and de-

tector sensitivity for elementary particle physics experiments; increased support for research on electronic materials, ceramics, and polymers; and participation in biotechnology research, especially chemistry of life processes.

(6) Scientific, technological, and international affairs

The fiscal year 1986 budget request for Scientific, Technological, and International Affairs is $38,360,000. This is a reduction of $6.1 million, or 13.8 percent, below the fiscal year 1985 current plan of $44,460,000.

Among programs budgeted for and managed by STIA, Small Business Innovation Research is expected to remain at a level equal to 1 percent of NSF extramural research funding, in accordance with an administration-proposed amendment to the Small Business Innovation Research Act. Programs in Research Initiation and Improvement (Visiting Professorships for Women and Research Improvement in Minority Institutions) are maintained at their current levels. International Cooperative Scientific Activities continue at a reduced level.

Among programs coordinated by STIA and funded by other NSF units, Research Opportunities for Women is increased from $500,000 to $1 million; the Experimental Program to Stimulate Competitive Research is increased from $1 to $2 million; support for Predominantly Undergraduate Institutions is increased from $42,400,000 to $44,400,000, and support for Minority Research Initiation will continue at its present level $2,500,000.

(7) Program development and management

The fiscal year 1986 budget request for Program Development and Management is for $69,900,000.

The Committee rejects the proposed 5 percent reduction in salaries. Thus, the Committee has made the necessary adjustments in the bill by adding $2 milllion to PDM and by reducing MPS, ENG, BBS, and AAEO as discussed above, but did not exceed the budget request. The Committee is aware of the need to provide adequate resources for effective programmatic oversight and productivity improvement activities. Therefore, the Committee urges NSF to make appropriate use of the transfer provision contained within the bill to supplement the PDM activity.

(8) Science and engineering education

The fiscal year 1986 budget request for Science and Engineering Education totals $82 million, of which $50,500,000 is requested as new obligational authority and $31,500,000 is deferred from fiscal year 1985 funds. Support for Graduate Research Fellowships will remain at the fiscal year 1985 level of $27,300,000 and will support approximately 1,520 fellowships, including 560 new fellows. The Presidential Young Investigators Program will continue, with 100 new awards. The College Science Instrumentation Program will continue at $5 million, which will permit about 200 awards to 4-year colleges and universities for instructional scientific equipment. These awards will be matched by at least an equal amount from other institutional resources.

In Precollege Science and Mathematics Education, support is planned for three major subactivities: (1) Materials Development and Research ($22,700,000) will emphasize elementary and junior high school activities, projects with clear national applicability, and dissemination of research results. Teacher Enhancement and Informal Science Education (25 million) will support activities leading to recognition and leadership of teachers. Special attention will be paid to the inclusion of women, minorities, and physically handicapped teachers. Informal science education projects will stress motivation and learning experiences for a broad range of participants. (3) Studies and Program Assessment ($2 million) will emphasize work on national statistical indicators, data bases, and models for use in precollege science and mathematics planning.

The Committee is concerned about the practice of deferring funds in SEE. It believes that stable, adequate funding is needed to improve education in the sciences and engineering, the need for which has been well documented. The Committee believes there should be no more deferrals in SEE, and that the full authorization of $82 million should be used in fiscal year 1986 for science and engineering education.

(9) United States Antarctic program

The fiscal year 1986 budget request for the United States Antarctic Program is $120,100,000. This is an increase of $9,200,000, or 8.3 percent, over the fiscal year 1985 current plan of $110,830,000. The request will increase support for research, with emphasis on glaciology and geology, and continue to upgrade two LC–130 aircraft. In addition to support of research, the program maintains an effective U.S. presence in this internationally important area.

Section 2(c) provides that, of the total amount authorized, $1,200,000 is authorized only for support of studies on ethics and values in science and technology.

The Committee has reviewed the Foundation's proposal to terminate the Ethics and Values in Science and Technology (EVIST) Program within the STIA Directorate and to transfer ethics and values activities to other parts of the Foundation, especially to the BBS Directorate. The Committee is convinced that meaningful research has been produced in this field. Because NSF is the only source of Federal support for this research activity, the Committee specifies that $1,200,000 of the total NSF authorization is authorized only for support of studies on ethics and values in science and technology. Although the Committee accepts the Foundation's proposal to support ethics and values activities through the various directorates, the Committee directs NSF to supervise these activities in a coordinated and integrated matter. Central supervision such as the type used to manage the Presidential Young Investigators program and the undergraduate research activities should be employed to ensure program coherence and accountability. In addition, the Committee encourages NSF to broaden the participation of the scientific community in ethical research issues.

SECTION 3

Section 3 makes appropriations available for obligation for periods specified in appropriations acts.

SECTION 4

Section 4 provides that not more than $3,500 may be used for consultation, representation, or extraordinary expenses at the discretion of the NSF Director.

SECTION 5

Section 5 authorizes, in addition to the appropriations in section 2, an appropriation not to exceed $1 million for expenses incurred outside the United States to be paid in excess foreign currencies.

The Foundation supports cooperative scientific and engineering projects primarily in India and Pakistan by using U.S.-owned foreign currencies that have been determined to be "in excess" by the Department of Treasury. The fiscal year 1986 budget request of $1 million represents an overall decrease of 64.8 percent from fiscal year 1985 in research and related activities funded by special foreign currency. The decrease reflects a change in the source of funding for research cooperation with India. Starting in fiscal year 1986, plans are to fund such cooperation through the United States-India Fund for Cultural, Educational, and Scientific Cooperation and not through this NSF budget activity. Management of the program by NSF will continue. The requested total amount of $1 million in special foreign currency will maintain close to the present level of participation of U.S. scientists and engineers in research cooperation with Pakistan and limited participation in the U.S.-Poland Joint Board.

SECTION 6

Section 6 limits transfer of funds between programmatic categories to less than 10 percent of the total for that category except through written notification to the appropriate Congressional Committees, including the Senate Commerce, Science, and Transportation Committee, and the President of the Senate and the Speaker of the House.

SECTION 7

Section 7 makes the following amendment to the NSF organic act and other laws:

(a) Notice of meetings

Subsection (a) amends section 4(e) of the National Science Foundation Act of 1950 by deleting the requirement that the National Science Board be notified of meetings by registered mail. The amendment allows meeting notices to be conveyed by any reasonable manner.

The Committee believes the certified mail requirement serves no useful purpose and is unduly burdensome. The Board schedules regular meetings months in advance and uses new technologies,

such as electronic mail, which are more efficient than certified mail.

(b) Delegation authority

Subsection (b) amends section 5(e) of the National Science Foundation Act of 1950 to remove the dollar cap on contracts for which the Board can delegate approval authority to the Director. This amendment is at the request of the National Science Board, which believes the change will allow the Board to exercise more effective review and oversight of Foundation programs. The amendment authorizes the Board to specify conditions in its approvals and delegations, and thus the Board will retain control over Foundation programs. The amendment also eliminates the requirement that the conditions of the Board's delegations to the Director be published in the Federal Register, and that every award made under such delegations be reported at the Board's next meeting. The Board may decide as part of its delegation how and when it wishes to be notified of awards.

The Committee agrees with the Board, and with witnesses at the hearing, that this amendment will allow the Board the flexibility it needs to create more appropriate mechanisms for oversight of Foundation programs. The Committee believes the Board should review and influence major program implementation decisions broadly across the Foundation. The Committee believes that the Board should continue to review proposed individual awards that involve special policy issues, that previously occasioned Board concern, and that otherwise appear strategically important.

(c) Assistant directors

Subsection (c) amends section 6 of the National Science Foundation Act of 1950 to remove the requirement that four Assistant Director positions be appointed by the President. It also makes conforming amendments elswhere.

The Committee is concerned about the process by which NSF Assistant Directors are appointed. Given that the Director, the Deputy Director, and the 24-Member National Science Board are all appointed by the President and confirmed by the Senate, the Committee has concluded it is not essential for the NSF Assistant Directors also to be Presidentially-appointed. Some of the Assistant Director positions have been vacant for over 2 years. The proper planning and management of a basic research program is not helped by senior staff vacancies that exist for this length of time. Thus, the Committee has included an amendment to eliminate the Presidential appointment of NSF's Assistant Directors. It is the Committee's intent that when this provision becomes law, the currently Presidentially-appointed Assistant Directors will become noncareer appointees in the Senior Executive Service and receive the requisite salaries and benefits.

(d) Special commissions

Subsection (d) amends section 9 of the National Science Foundation Act of 1950 to remove restrictions on the terms under which the Board can appoint special commissions. The Committee believes that, although special commissions can be a useful means of

focusing attention on an issue, restrictions in the law on their composition limit their value and therefore their use.

The Committee believes special commissions should be able to do more than make a "comprehensive survey of research" and that their composition should not be limited to six scientists and five nonscientists. The Committee believes the Board should be able to establish special commissions to study and make recommendations on any issues relating to the principal areas of responsibility of the Foundation, and that the Board should be able to select the best mix of scientists and nonscientists to address the issue.

(e) Indemnification

Subsection (e) amends section 11 of the National Science Foundation Act of 1950 by adding a new subsection to authorize the Foundation to indemnify contractors of its Ocean Drilling Program. Public Law 98–371, which appropriated funds for fiscal year 1985 for the NSF, authorized the Foundation to indemnify the contractors and subcontractors of the Ocean Drilling Program in accordance with section 2354 of title 10, United State Code. Unless authorized this authority will expire on September 30, 1986. The Foundation has used this authority to indemnify contractors and subcontractors of its ocean drilling programs against liabilities resulting from risks peculiar to this week, and the Committee believes this authority should continue.

(f) Patent ownership

Subsection (f) deletes section 12(b) of the National Science Foundation Act of 1950 to remove the prohibition on Foundation employees owning a U.S. patent on any invention made in connection with and directly relating to the subject matter of the employee's assigned duties.

The Foundation is believed to be the only Federal agency to have a statutory provision governing the allocation of rights to inventions made by its employees. All other agencies are governed by Executive Order 10096, as amended, which permits Federal employee-inventors to retain principal patent rights to their inventions under certain circumstances. The Committee knows of no reason for this special restriction on the Foundation's employees. The provision may have resulted from a general congressional concern over the treatment of Federal employees' inventions, which President Harry Truman assuaged by issuing Executive Order 10096 in January 1950, just 4 months before the act became law.

As far as can be determined, the provision has had no actual effect. The Foundation performs no "in-house" research likely to produce inventions. Only one invention has ever been reported by a Foundation employee.

The Committee believes deletion of this provision would simplify the law and remove an inequitable distinction between the Foundation's employees and those of other Federal agencies.

(g) Outside activities and Freedom of Information Act

Subsection (g) amends section 14 of the National Science Foundation Act of 1950 to remove certain limits on the activities of senior

Foundation officials and exempts certain Foundation information-gathering activities from the Freedom of Information Act.

The first part of the amendment deletes the prohibition on outside employment or business by senior Foundation officials. This prohibition dealt with an important issue in 1950, but has outlived its usefulness.

In 1947, President Truman vetoed the first National Science Foundation Act to pass the Congress because:

> It would, in effect, vest the determination of vital national policies, the expenditure of large public funds, and the administration of important governmental functions in a group of individuals who would be essentially private citizens.

President Truman objected to provisions in the bill that would have vested these powers in part-time members of the Foundation, its part-time Executive Committee, and part-time divisional committees for the major parts of the Foundation. "[R]esponsibility for the administration of the law should be vested in full-time officers who can be held accountable . . .", he said.

What is now section 14(b) of the National Science Foundation Act was added to ensure that this objection was fully met. "The Director and his deputy," summarized the Senate Committee, "are to devote full-time to the Foundation," S. Rep. No. 1151, 80th Cong., 2d Sess. 5 (1948).

The original issue is now all but forgotten. No one doubts that the Director, Deputy Director, and Assistant Directors of the Foundation are to be full-time Federal officials like their counterparts in any other Federal agency. Moreover, the Foundation has grown larger than was originally foreseen and could not now feasibly be run by part-time officials.

The sweeping language of the provision regarding "any other business, vocation, and employment" has remained, however, to cast some doubt on the right of Director, Deputy Director, or Assistant Director to have outside interests such as would be permitted to other full-time Government executives. Section 210 of the Ethics in Government Act of 1978 (5 U.S.C. App. 210) now curbs outside activities of such Presidentially appointed executives by limiting their outside earned income to 15 percent of Government salary. The Committee believes Foundation executives need not be subject to additional restrictions. Removal of this now-outdated provision will eliminate unnecessary legal questions.

The final part of the proposed amendment adds to the end of section 14, as amended and redesignated, language assuring that the Foundation cannot be compelled under the Freedom of Information Act (5 U.S.C. 552) to disclose information gathered from commerial or industrial organizations or the names of organizations supplying such information. The new section 14(i) would put NSF survey data under "Exemption (b)(3)" of the Freedom of Information Act [5 U.S.C. 552(b)(3)].

The Committee believes that this statutory exemption from the Freedom of Information Act is necessary for the Foundation to continue:

> to evaluate the status and needs of the various sciences as evidenced by programs, projects, and studies undertaken by . . . private research groups; [and]
> to provide a central clearinghouse for the collection, interpretation, and analysis of data on the availability of, and the current and projected need for, scientific and technical resources in the United States, and tc provide a source of information for policy formulation by other agencies of the Federal Government.

[NSF Act, section 3(a)(5) and 3(a)(6)].

As America's scientific and technological infrastructure has become increasingly dynamic and complex, the information needed to identify and understand important developments and trends has changed. Policymakers are asking the Foundation not only for more and more detailed information on financial and human resources allocated to research activities in so-called "high technology" industries, but also for data on the factors underlying allocation decisions. The highly competitive nature of such industries, however, makes firms reluctant to provide the kinds of information needed to anticipate and interpret industry-wide trends without guarantees of confidentiality and anonymity. Many firms consider proprietary, and therefore will not reveal, even the fact that they are doing research in an area. Data on specific research objectives, numbers of scientists and engineers employed on particular projects, and project costs are even more sensitive. The firms fear that proprietary data may find its way into the hands of a commercial rival or that incorrect forecasts will come back to haunt them. This fear is crippling the Foundation's ability "to provide a source of information for policymakers".

One way that the Foundation now compensates for its inability to safeguard information from disclosure under the Freedom of Information Act is by having the annual NSF survey of industrial R&D activities conducted by the Census Bureau. That way, the data is covered by the Census Bureau's statutory exemption. Unfortunately, the terms of that exemption forbid identification of individual respondents even to the Foundation, so that it has no way of following up on unusual or missing responses.

The amendment gives the Foundation no discretion to disclose survey data or the identity of respondents. This addresses the reluctance of some potential respondents to giving the Foundation control over their proprietary data. That concern, or mistrust, is the reason that the existing FOIA exemption for "confidential commercial information [5 U.S.C. 552(b)(4)], which is discretionary, is not considered adequate by potential respondents.

The Foundation's Office of the General Counsel has advised that some, perhaps all, survey data considered by firms to be proprietary might be withheld from disclosure under the "(b)(4) exemption" [5 U.S.C. 552(b)(4)] or another FOIA exemption. The Foundation's authority to withhold the names of respondents to surveys is uncertain, however, since firm names are not generally considered privileged. Without such anonymity many firms would decline to participate in any surveys out of concern that their association with particular survey topics would permit competitors to infer sensitive elements of their research strategy.

The Committee intends that the FOIA exemption provided by the new section 14(i) be confined to survey data gathered under sections 3(a)(5) and 3(a)(6) of the act. The exemption will not be used to prevent disclosure of any other information.

(h) Conflict-of-interest

Subsection (h) deletes section 10 of the National Science Foundation Authorization Act, fiscal year 1978 to repeal certain conflict-of-interest provisions. Section 10 of that act requires Foundation employees to disclose any financial interests or academic affiliations that might bear on their handling of proposals or other applications. It also requires that the NSF adopt implementing regulations. It is unique, as no other non-regulatory agency of the Federal Government is subject to specific statutory requirements in this area. The broader disclosure requirements of the subsequently-enacted Ethics in Government Act of 1978 are now binding on all agencies, including the NSF. (In fact, under subsection (d), 42 U.S.C. 1873a(d), most of this section was superseded by the Ethics in Government Act of 1978.) Moreover, all agencies are required by Executive Order 11222 to maintain conflict-of-interests regulations that deal with any problems unique to their programs and methods of operation.

The Foundation's conflict-of-interests regulations were extensively revised in 1982 (45 CFR Parts 680 through 684; published in the *Federal Register*, Vol. 47, No. 143, July 26, 1982, on pages 32130 through 32153). These regulations now require both disclosure of all potentially biasing affiliations or relationships and special oversight in cases involving them, with further special handling of necessary (45 CFR Part 681). The Committee believes the statutory provision is thus no longer necessary. Its deletion would simplify the law and allow more scope for future evolution of NSF policy in this area.

(i) Waterman award

Subsection (i) amends section 6(a) of the National Science Foundation Authorization Act, 1976 to allow the Foundation to adjust the terms of its Alan T. Waterman Award. The Committee believes the Foundation should be able to adjust the terms of this award as it would any other grant, to remedy the effects of inflation, or otherwise maintain the value of this award relative to other grants.

(j) Resource Centers for Science and Engineering

Subsection (j) deletes section 6 of the National Science Foundation Authorization Act, Fiscal Year 1978 to repeal the codification of certain Foundation programs. The repealed provision directs the Foundation to establish a Resource Center for Science and Engineering to be located at an educational institution. Four such centers have been funded.

No other specific programs of the Foundation have been codified. Authority for establishing the centers is now covered by the Science and Technology Equal Opportunities Act, which makes this section redundant. The Committee believes deleting this provision will simplify the law.

SECTION 8

Section 8 makes a series of amendments to the National Science Foundation Act of 1950 and related laws codified in Chapter 16 of title 42, United States Code, to add references to "engineers" and "engineering". These amendments are similar to title II of H.R. 5172, which passed both the House and the Senate in October, 1984. The Committee intends by these changes to emphasize that the Foundation's mission includes support of engineering as well as science.

SECTION 9

Section 9 directs the NSF to conduct a systematic assessment of university research facilities and to report to Congress.

The Committee has examined the research facilities needs of universities. It found sufficient evidence to suggest the presence of a serious and growing problem. The development of successful long-term solutions to this problem will require comprehensive documentation of these needs. The Congress, the NSF, the mission agencies, the States, industry, and the universities all will benefit from an improved understanding of the problem and its consequences.

The bill directs the Foundation to establish and maintain a permanent data collection and analysis capability to identify and assess, in a comprehensive manner, the research facilities needs of universities. The Committee expects that the data collected from universities and the Foundation's analyses will document the present condition and anticipated needs for research facilities in our research universities, by major field of science and engineering; will analyze present sources of facilities funding, and will assess the capacity of universities to conduct competitive research and quality education programs. The Committee also encourages the Foundation to assess the consequences of inadequate facilities on our industrial base, on our national security, and on the ability of agencies to pursue their missions.

The Committee included this provision in the bill to ensure that the work will begin promptly. The research facilities needs of universities is a priority concern of the Nation and of this Committee. The first report is due to the Congress not later than September 1, 1986.

Although the Committee acknowledges the potentially serious shortfall in university research facilities, it is concerned about the efforts by some universities to bypass merit-based review and to use the legislative process to fund facilities, equipment, and programs directly. The National Science Board released a report by its Committee on Excellence in Science and Engineering (Hess Report) on February 22, 1985. This report documented fifteen instances in which universities received direct authorizations or appropriations for academic research projects valued at over $100 million over a 3-year period.

The Committee deplores the practice of bypassing merit-based review. This practice threatens to undermine the broad support for public funding of science and engineering research. The merit-based review system maximizes the scientific return on the Federal

investment by assuring that awards are made on the scientific merit of the proposal and on the professional merit of the proposer. The system is both efficient and fair, and should be supported strongly by the research community and by the Congress.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in italic, existing law in which no change is proposed is shown in roman):

THE NATIONAL SCIENCE FOUNDATION ACT OF 1950

Section 3 of that Act

FUNCTIONS

SEC. 3. (a) The Foundation is authorized and directed—

(1) to initiate and support basic scientific research and programs to strengthen scientific research potential and science education programs at all levels in the mathematical, physical, medical, biological, [engineering,] social, and other sciences, *and to initiate and support research fundamental to the engineering process and programs to strengthen engineering research potential and engineering education programs at all levels in the various fields of engineering,* by making contracts or other arrangements (including grants, loans, and other forms of assistance) to support such scientific, *engineering,* and educational activities and to appraise the impact of research upon industrial development and upon the general welfare;

(2) to award, as provided in section 10, scholarships and graduate fellowships in the mathematical, physical, medical, biological, engineering, social, and other sciences;

(3) to foster the interchange of scientific *and engineering* information among scientists *and engineers* in the United States and foreign countries;

(4) to foster and support the development and use of computer and other scientific *and engineering* methods and technologies, primarily for research and education in the sciences *and engineering*;

(5) to evaluate the status and needs of the various sciences *and fields of engineering* as evidenced by programs, projects, and studies undertaken by agencies of the Federal Government, by individuals, and by public and private research groups, employing by grant or contract such consulting services as it may deem necessary for the purpose of such evaluations; and to take into consideration the results of such evaluations in correlating the research and educational programs undertaken or supported by the Foundation with programs, projects, and studies undertaken by agencies of the Federal Government, by individuals, and by public and private research groups;

(6) to maintain a current register of scientific and [technical] *engineering* personnel, and in other ways to provide a central clearinghouse for the collection, interpretation, and analysis of data on the availability of, and the current and projected need for, scientific and [technical] *engineering* resources in the United States, and to provide a source of information for policy formulation by other agencies of the Federal Government; and

(7) to initiate and maintain a program for the determination of the total amount of money for scientific *and engineering* research, including money allocated for the construction of the facilities wherein such research is conducted, received by each educational institution and appropriate nonprofit organization in the United States by grant, contract, or other arrangement from agencies of the Federal Government, and to report annually thereon to the President and the Congress.

(b) The Foundation is authorized to initiate and support specific scientific *and engineering* activities in connection with matters relating to international cooperation, national security, and the effects of scientific *and engineering* applications upon society by making contracts or other arrangements (including grants, loans, and other forms of assistance) for the conduct of such activities. When initiated or supported pursuant to requests made by any other Federal department or agency, including the Office of Technology Assessment, such activities shall be financed whenever feasible from funds transferred to the Foundation by the requesting official as provided in section [14(g)] *14(f)* and any such activities shall be unclassified and shall be identified by the Foundation as being undertaken at the request of the appropriate official.

(c) In addition to the authority contained in subsections (a) and (b), the Foundation is authorized to initiate and support scientific *and engineering* research, including applied research, at academic and other nonprofit institutions. When so directed by the President, the Foundation is further authorized to support, through other appropriate organizations, applied scientific research *and engineering* research relevant to national problems involving the public interest. In exercising the authority contained in this subsection, the Foundation may employ by grant or contract such consulting services at it deems necessary, and shall coordinate and correlate its activities with respect to any such problem with other agencies of the Federal Government undertaking similar programs in that field.

(d) The Board and the Director shall recommend and encourage the pursuit of national policies for the promotion of [basic research and education in the sciences] *research and education in science and engineering.*

(e) In exercising the authority and discharging the functions referred to in the foregoing subsections, it shall be an objective of the Foundation to strengthen research and education in the sciences *and engineering,* including independent research by individuals, throughout the United States, and to avoid undue concentration of such research and education.

(f) * * *

Section 4 of that Act

NATIONAL SCIENCE BOARD

SEC. 4. (a)–(b) * * *

(c) The persons nominated for appointment as members of the Board (1) shall be eminent in the fields of the basic, medical, or social sciences, engineering, agriculture, education, research management, or public affairs; (2) shall be selected solely on the basis of established records of distinguished service; and (3) shall be so selected as to provide representation of the views of scientific *and engineering* leaders in all areas of the Nation. In making nominations under this section, the President shall give due regard to equitable representation of scientists *and engineers* who are women or who represent minority groups.

The President is requested, in the making of nominations of persons for appointment as members, to give due consideration to any recommendations for nomination which may be submitted to him by the National Academy of Sciences, *the National Academy of Engineering,* the National Association of State Universities and Land Grant Colleges, the Association of American Universities, the Association of American Colleges, the Association of State Colleges and Universities, or by other scientific *and engineering* or educational organizations.

(d) * * *

(e) The Board shall meet annually on the third Monday in May unless, prior to May 10 in any year, the Chairman has set the annual meeting for a day in May other than the third Monday, and at such other times as the Chairman may determine, but he shall also call a meeting whenever one-third of the members so request in writing. A majority of the members of the Board shall constitute a quorum. Each member shall be given notice, [by registered mail or certified mail mailed to his last known address of record] not less than fifteen days prior to any meeting, of the call of such meeting.

(f)–(j) * * *

Section 5 of that Act

DIRECTOR OF THE FOUNDATION

SEC. 5. (a)–(d) * * *

[(e) The Director shall not make any contract, grant, or other arrangement pursuant to section 11(c) without the prior approval of the Board, except that a grant, contract, or other arrangement involving a total commitment of less than $2,000,000, or less than $500,000 in any one year, or a commitment of such lesser amount or amounts and subject to such other conditions as the Board in its discretion may from time to time determine to be appropriate and publish in the Federal Register, may be made if such action is taken pursuant to the terms and conditions set forth by the Board, and if each such action is reported to the Board at the Board meeting next following such action.]

(e) The Director may make contracts, grants, and other arrangements pursuant to section 11(c) only with the prior approval of the

Board or under authority delegated by the Board, and subject to such conditions as the Board may specify.

(f) * * *

Section 6 of that Act

DEPUTY DIRECTOR AND ASSISTANT DIRECTORS

SEC. 6. [(a)] There shall be Deputy Director of the Foundation (referred to in this Act as the "Deputy Director"), who shall be appointed by the President, by and with the advice and consent of the Senate. Before any person is appointed as Deputy Director, the President shall afford the Board and the Director an opportunity to make recommendations to him with respect to such appointment. The Deputy Director shall receive basic pay at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code, and shall perform such duties and exercise such powers as the Director may prescribe. The Deputy Director shall act for, and exercise the powers of, the Director during the absence or disability of the Director or in the event of a vacancy in the office of Director.

[(b) There shall be four Assistant Directors of the Foundation (each referred to in this Act as an "Assistant Director"), who shall be appointed by the President, by and with the advice and consent of the Senate. Before any person is appointed as an Assistant Director, the President shall afford the Board and the Director and opportunity to make recommendations to him with respect to such appointment. Each Assistant Director shall receive basic pay at the rate provided for level V of the Executive Schedule under section 5316 of title 5, United States Code, and shall perform such duties and exercise such powers as the Director may prescribe.]

Section 9 of that Act

[SPECIAL COMMISSION

[SEC. 9. (a) Each special commission established pursuant to section 4(i) shall consist of eleven members appointed by the Board, six of whom shall be eminent scientists and five of whom shall be persons other than scientists. Each special commission shall choose its own chairman and vice chairman.

[(b) It shall be the duty of each such special commission to make a comprehensive survey of research, both public and private, being carried on in its field, and to formulate and recommend to the Foundation at the earliest practicable date an over-all research program in its field.]

SPECIAL COMMISSIONS

(a) Each special commission established under section 4(h) shall be appointed by the Board and shall consist of such members as the Board considers appropriate.

(b) Special commissions may be established to study and make recommendations to the Foundation on issues relating to research and education in science and engineering.

Section 10 of that Act

SCHOLARSHIPS AND GRADUATE FELLOWSHIPS

SEC. 10. The Foundation is authorized to award, within the limits of funds made available specifically for such purpose pursuant to section 16, scholarships and graduate fellowships for [scientific study or scientific work in the mathematical, physical, medical, biological, engineering, social, and other sciences] *study and research in the sciences or in engineering* at appropriate nonprofit American or nonprofit foreign institutions selected by the recipient of such aid, for stated periods of time. Persons shall be selected for such scholarships and fellowships from among citizens or nationals of the United States, and such selections shall be made solely on the basis of ability; but in any case in which two or more applicants for scholarships or fellowships, as the case may be, are deemed by the Foundation to be possessed of substantially equal ability, and there are not sufficient scholarships or fellowships, as the case may be, available to grant one to each of such applicants, the available scholarship or scholarships or fellowship or fellowships shall be awarded to the applicants in such manner as will tend to result in a wide distribution of scholarships and fellowships throughout the United States. Nothing contained in this Act shall prohibit the Foundation from refusing or revoking a scholarship or fellowship award, in whole or in part, in the case of any applicant or recipient, if the Board is of the opinion that such award is not in the best interests of the United States

Section 11 of that Act

GENERAL AUTHORITY OF FOUNDATION

SEC. 11. The Foundation shall have the authority, within the limits of available appropriations, to do all things necessary to carry out the provisions of this Act, including, but without being limited thereto, the authority—

(a)–(b) * * *

(c) to enter into contracts or other arrangements, or modifications thereof, for the carrying on, by organizations or individuals in the United States and foreign countries, including other government agencies of the United States and of foreign countries, of such scientific *or engineering* activities as the foundation deems necessary to carry out the purposes of this Act, and, at the request of the Secretary of State or Secretary of Defense, specific scientific *or engineering* activities in connection with matters relating to international cooperation or national security, and, when deemed appropriate by the Foundation, such contracts or other arrangements, or modifications thereof, may be entered into without legal consideration, without performance or other bonds, and without regard to section 3709 of the Revised Statutes;

(d) to make advance, progress, and other payments which relate to scientific *or engineering* activities without regard to the provisions of section 3648 of the Revised Statutes (31 U.S.C. sec. 529);

(e)–(f) * * *

(g) to publish or arrange for the publication of scienfic and [technical] *engineering* information so as to further the full dissemination of information of scientific *or engineering* value consistent with the national interest, without regard to the provisions of section 87 of the Act of January 12, 1895 (28 Stat. 622), and section 11 of the Act of March 1, 1919 (40 Stat. 1270; 44 U.S.C., sec. 111);

(h) * * *

(i) to prescribe, with the approval of the Comptroller General of the United States, the extent to which vouchers for funds expended under contracts for scientific research shall be subject to itemization or substantiation prior to payment, without regard to the limitations of other laws relating to the expenditure of public funds and accounting therefor; [and]

(j) to arrange with a reimburse the heads of other Federal agencies for the performance of any activity which the Foundation is authorized to conduct[.]*; and*

(k) to indemnify grantees, contractors, and subcontractors associated with the Ocean Drilling Program under the provisions of section 2354 of title 10, United States Code, with all approvals and certifications required by such indemnification made by the Director.

Section 12 of that Act

PATENT RIGHTS

SEC. 12. [(a)] Each contract or other arrangement executed pursuant to this Act which relates to scientific *or engineering* research shall contain provisions governing the disposition of inventions produced thereunder in a manner calculated to protect the public interest and the equities of the individual or organization with which the contract or other arrangement is executed: *Provided, however,* That nothing in this Act shall be construed to authorize the Foundation to enter into any contractual or other arrangement inconsistent with any provision of law affecting the issuance or use of patents.

[(b) No officer or employee of the Foundation shall acquire, retain, or transfer any rights, under the patent laws of the United States or otherwise, in any invention which he may make or produce in connection with performing his assigned activities and which is directly related to the subject matter thereof: *Provided, however,* That this subsection shall not be construed to prevent any officer or employee of the Foundation from executing any application for patent on any such invention for the purpose of assigning the same to the Government or its nominee in accordance with such rules and regulations as the Director may establish.]

Section 13 of that Act

INTERNATIONAL COOPERATION AND COORDINATION WITH FOREIGN POLICY

SEC. 13. (a) The Foundation is hereby authorized to cooperate in any international scientific *or engineering* activities consistent with the purposes of this Act and to expend for such international scientific *or engineering* activities such sums within the limit of appropriated funds as the Foundation may deem desirable. The Director may defray the expenses of representatives of Government agencies and other organization and of individual scientists *or engineers* to accredited international scientific *or engineering* congresses and meetings whenever he deem it necessary in the promotion of the objectives of this Act. In this connection, with the approval of the Secretary of State, the Foundation may undertake programs granting fellowships to, or making other similar *study and research in the sciences or in engineering* arrangements with, foreign nationals for [scientific study or scientific work] in the United States without regard to section 10 or the affidavit of allegiance to the United States required by section 15(d)(2) of this Act.

(b)(1) The authority to enter into contracts or other arrangements with organizations or individuals in foreign countries and with agencies of foreign countries, as provided in section 11(c), and the authority to cooperate in international scientific *or engineering* activities as provided in subsection (a) of this section, shall be exercised only with the approval of the Secretary of State, to the end that such authority shall be exercised in such manner as is consistent with the foreign policy objectives of the United States.

(2) If, in the exercise of the authority referred to in paragraph (1) of this subsection, negotiation with foreign countries or agencies thereof becomes necessary, such negotiation shall be carried on by the Secretary of State in consultation with the Director.

Section 14 of that Act

MISCELLANEOUS PROVISIONS

SEC. 14. (a) * * *

[(b) Neither the Director, the Deputy Director, nor any Assistant Director shall engage in any other business, vocation, or employment while serving in such position; nor shall the Director, the Deputy Director, or any Assistant Director, except with the approval of the Board, hold any office in, or act in any capacity for, any organization, agency, or institution with which the Foundation makes any grant, contract, or other arrangement under this Act.]

[(c)] *(b)* The Foundation shall not, itself, operate any laboratories or pilot plants.

[(d)] *(c)* The members of the Board and the members of each special commission shall receive compensation for each day engaged in the business of the Foundation at a rate fixed by the Chairman but not exceeding the rate specified for the daily rate for GS–18 of the General Schedule under section 5332 of title 5, United States Code, and shall be allowed travel expenses as authorized by section 5703 of title 5, United States Code.

[(e)] *(d)* Persons holding other offices in the executive branch of the Federal Government may serve as members of special commissions, but they shall not receive remuneration for their services as such members during any period for which they receive compensation for their services in such other offices.

[(f)] *(e)* In making contracts or other arrangements for scientific *or engineering* research, the Foundation shall utilize appropriations available therefor in such manner as will in its discretion best realize the objective of (1) having the work performed by organizations, agencies, and institutions, or individuals in the United States or foreign countries, including Government agencies of the United States and of foreign countries, qualified by training and experience to achieve the results desired, (2) strengthening the research staff of organizations, particularly non-profit organizations, in the United States, (3) aiding institutions, agencies, or organizations which, if aided, will advance scientific *or engineering* research, and (4) encouraging independent scientific *or engineering* research by individuals.

[(g)] *(f)* Funds available to any department or agency of the Government for scientific or [technical] *engineering* research, or the provision of facilities therefor, shall be available for transfer, with the approval of the head of the department or agency involved, in whole or in part to the Foundation for such use as is consistent with the purposes for which such funds were provided, and funds so transferred shall be expendable by the Foundation for the purposes for which the transfer was made.

[(h)] *(g)* For purposes of this Act, the term "United States" when used in a geographical sense means the States, the District of Columbia, the Commonwealth of Puerto Rico, and all territories and possessions of the United States.

[(i)] *(h)* Notwithstanding any other provision of law, the authorization of any appropriation to the Foundation shall expire (unless an earlier expiration is specifically provided) at the close of the second fiscal year following the fiscal year for which the authorization was enacted, to the extent that such appropriation has not theretofore actually been made.

(i) Information supplied to the Foundation or a contractor of the Foundation by an industrial or commercial organization in survey forms, questionnaires, or similar instruments for the purposes of section 3(a)(5) or 3(a)(6) may not be disclosed to the public unless such information has been transformed into statistical or aggregate formats that do not allow the identification of the supplier. The names of organizations supplying such information may not be disclosed to the public.

Section 15 of that Act

SECURITY PROVISIONS

SEC. 15. (a) * * *

(b)(1) In the case of scientific or [technical] *engineering* research activities under this Act in connection with matters relating to the national defense, with respect to which funds have been transferred to the Foundation from the Department of Defense in ac-

cordance with the provisions of section [14(g)] *14(f)* of this Act, the Secretary of Defense shall establish such security requirements and safeguards, including restrictions with respect to access to information and property, as he deems necessary.

(2) In the case of scientific *or engineering* research activities under this Act in connection with matters relating to the national defense other than research activities referred to in paragraph (1) of this subsection, the Foundation shall establish such security requirements and safeguards, including restrictions with respect to access to information and property, as it deems necessary.

(3) * * *

(c) * * *

THE NATIONAL SCIENCE FOUNDATION AUTHORIZATION ACT, 1976

Section 2 of that Act

SEC. 2. (a) * * *

(b) After the date of enactment of this Act the Director of the National Science Foundation, shall require, as a condition of any award made by the National Science Foundation for the purpose of precollege science *or engineering* curriculum development activities, that the awardee, and any subcontractors involved in the distribution, marketing, or selling of such science *or engineering* curricula, shall include include in any testing agreement, sales contract, or other comparable legal instrument a provision requiring that all instructional materials, including teacher's manuals, films, tapes, or other supplementary instructional materials developed or provided under such award, subcontract, or other legal instrument, will be made available within the school district using such materials for inspection by parents or guardians of children engaged in educational programs or projects of that school district. In addition, the Director of the National Science Foundation shall take such action as may be necessary and feasible to modify awards made for the purpose of precollege science *or engineering* curriculum development and implementation activities on or before the date of enactment of this Act to include such a provision in all possible cases.

(c)–(e) * * *

Section 6 of that Act

SEC. 6. (a) the National Science Foundation is authorized to establish the Alan T. Waterman Award for research or advanced study in the mathematical, physical, medical, biological, engineering, behavioral, social, or other sciences. The award authorized by this section shall consist of a suitable medal and a grant [not to exceed $50,000 per year for a period not to exceed three years] to support further research or study by the recipient. *The National Science Board will periodically establish the amounts and terms of grants under this subsection.*

(b)–(c) * * *

THE NATIONAL SCIENCE FOUNDATION AUTHORIZATION ACT, FISCAL YEAR 1978

Section 6 of that Act

[SEC. 6. (a) The National Science Foundation shall establish a Resource Center for Science and Engineering to be locate at an educational institution which—

[(1) enrolls substantial numbers of minority students, students from low-income families, or both;

[(2) is geographically located near one or more population centers of low-income families or minority groups.

[(3) demonstrates a commitment to encouraging and assisting minority students or students from low-income families, or both; and

[(4) has an existing or developing capacity to offer doctoral programs in science and engineering.

[(b) The Center established under this section shall—

[(1) support basic research and the acquisition of necessary research facilities and equipment;

[(2) serve as a regional resource in science and engineering for the community which the Center serves; and

[(3) develop joint educational programs with nearby pre-college and undergraduate institutions which enroll a substantial number of minority students or students from low-income families.]

Section 7 of that Act

SEC. [7.] *6.* In addition to such sums as are authorized by section 2, not to exceed $4,900,000 is authorized to be appropriated for the fiscal year 1978 for expenses of the National Science Foundation incurred outside the United States to be paid for in foreign currencies which the Treasury Department determines to be excess to the normal requirements of the United States.

Section 8 of that Act

SEC. [8.] *7.* Appropriations made pursuant to this Act may be used, but not to exceed $5,000, for official consultation, representation, or other extraordinary expenses upon the approval or authority of the Director of the National Science Foundation, and his determination shall be final and conclusive upon the accounting officers of the Government.

Section 9 of that Act

SEC. [9.] *8.* The National Science Foundation is directed to issue instructions to grantees for pre-college curriculum projects covering the protection of pre-college students and procedures for involving such students in pre-college education reseach and development, pilot-testing, evaluation, and revision of experimental and innovative pre-college curriculum projects funded by the Foundation. These instructions shall require such grantees to obtain written approval of the school board or comparable authority responsible for the schools prior to the involvement of such students.

Section 10 of that Act

[SEC. 10. (a)(1) Each officer or employee of the National Science Foundation who performs a decisionmaking function in the handling of any application or proposal for a grant from or contract with the Foundation shall provide a written statement for the record identifying (in accordance with the standards promulgated under subsection (b)) any financial interest or other relevant interest he or she has in the person submitting the application or proposal and any academic affiliation he or she has with that person. If the application or proposal results in an award, the statement shall be made available to the public.

[(2) The Director shall remove or take other appropriate disciplinary action against any employee who knowingly violates the requirements of this subsection.

[(b)(1) Within 60 days after the date of the enactment of this Act the Director of the National Science Foundation shall publish—

[(A) proposed standards to implement the requirements of subsection (a), designed to minimize conflicts of interest and to assure that the appropriate files of the Foundation relating to any grant or contract referred to in such subsection contain a statement of any financial or other relevant interest which any of the officers and employees involved may have in the person or institution applying for or proposing the grant or contract as well as any academic affiliation which any of such officers and employees may have with such person or institution; and

[(B) proposed standards appropriately requiring identification of any conflicts of interest by peer reviewers.

[(2) Within 120 days after the date of the enactment of this Act, the Director shall promulgate the standards published under paragraph (1), with such modifications as the Director may deem appropriate; and such standards shall take effect upon their promulgation.

[(c) [Repealed.]

[(d) If the President issues an Executive order that requires financial disclosure by officers and employees of Federal agencies generally, only so much of this section as relates to peer reviewers and to academic affiliations of officers and employees shall remain effective.]

Section 11 of that Act

SEC. [11.] *9.* Appropriations made pursuant to this Act shall remain available for obligation, for expenditure, or for obligation and expenditure, for such period or periods as may be specified in the Acts making such appropriations.

Section 12 of that Act

SEC. [12.] *10.* No funds may be transferred from any particular category listed in section 2 to any other category or categories listed in such section if the total of the funds so transferred from that particular category would exceed 10 per centum thereof, and no funds may be transferred to any particular category listed in section 2 from any other category or categories listed in such sec-

tion if the total of the funds so transferred to that particular category would exceed 10 per centum thereof, unless—

(1) a period of thirty legislative days has passed after the Dirctor of the National Science Foundation or his designee has transmitted to the Speaker of the House of Representatives and to the President of the Senate and to the Committee on Science and Technology of the House of Representatives and to the Committee on Human Resources of the Senate a written report containing a full and complete statement concerning the nature of the transfer and the reason therefor, or

(2) each such committee before the expiration of such period has transmitted to the Director written notice to the effect that such committee has no objection to the proposed action.

Section 13 of that Act

SEC. [13.] *11.* Notwithstanding any other provision of this or any other Act, the Director of the National Science Foundation shall keep the Committee on Labor and Human Resources of the Senate and the Committee on Science and Technology of the House of Representatives fully and currently informed with respect to all of the activities of the National Science Foundation.

Section 14 of that Act

SEC. [14.] *12.* (a) Section 3(e) of the National Science Foundation Act of 1950 (42 U.S.C. 1862(e)) is amended by striking out "one of the objectives" and inserting in lieu thereof "an objective".

(b) Section 4 of such Act (42 U.S.C. 1863) is amended by adding at the end thereof the following new subsection:

"(j) The Board shall render an annual report to the President, for submission to the Congress on or before March 31 in each year. Such report shall deal essentially, though not necessarily exclusively, with policy issues or matters which affect the Foundation or with which the Board in its official role as the policymaking body of the Foundation is concerned.".

(c) Section 14(d) of such Act (42 U.S.C. 1873(d)) is amended to read as follows:

"(d) The members of the Board and the members of each special commission shall receive compensations for each day engaged in the business of the Foundation at a rate fixed by the Chairman but not exceeding the rate specified for the daily rate for GS–18 of the General Schedule under section 5332 of title 5, United States Code, and shall be allowed travel expenses as authorized by section 5703 of title 5, United States Code.".

TITLE 5, UNITED STATES CODE

Section 5316 of that title

§ 5316. Positions at level V

Level V of the Executive Schedule applies to the following positions, for which the annual rate of basic pay shall be the rate de-

termined with respect to such level under chapter 11 of title 2, as adjusted by section 5318 of this title:

* * * * * * *

Director, National Bureau of Standards, Department of Commerce.

Director of Science and Education, Department of Agriculture.

Deputy Commission of Interior Revenue, Department of the Treasury.

[Assistant Director, National Science Foundation (4).]

Deputy Director, Policy and Plans, United States Information Agency.

Deputy General Council, Department of Defense.

Associate Director of the Federal Mediation and Conciliation Service.

Associate Director for Volunteers, Peace Corps.

Associate Director for Program Development and Operations, Peace Corps.

* * * * * * *

THE NATIONAL SCIENCE FOUNDATION AUTHORIZATION AND SCIENCE AND TECHNOLOGY EQUAL OPPORTUNITIES ACT

The first section of that Act

That this Act may be cited as the "National Science Foundation Authorization and Science and [Technology] *Engineering* Equal Opportunities Act".

* * * * * * *

Part B of that Act

PART B—WOMEN, MINORITIES, SCIENCE, AND [TECHNOLOGY] *ENGINEERING*

Section 31 of that Act

SHORT TITLE

SEC. 31. This part may be cited as the "Science and [Technology] *Engineering* Equal Opportunities Act".

Section 32 of that Act

FINDINGS AND POLICY

SEC. 32. (a) The Congress finds that it is in the national interest to promote the full use of human resources in science and [technology] *engineering* and to insure the full development and use of the [scientific talent and technical skills] *scientific and engineering talents and skills* of men and women, equally, of all ethnic, racial, and economic backgrounds.

(b) The Congress declares it is the policy of the United States to encourage men and women, equally, of all ethnic, racial, and economic backgrounds to acquire skills in science, *engineering*, and

mathematics, to have equal opportunity in education, training, and employment in scientific and [technical] *engineering* fields, and thereby to promote scientific *and engineering* literacy and the full use of the human resources of the Nation in science and [technology] *engineering*. To this end, the Congress declares that the highest quality science *and engineering* over the long-term requires substantial support, from currently available research and educational funds, for increased participation in science and [technology] *engineering* by women and minorities. The Congress further declares that the impact on women and minorities which is produced by advances in science and [technology] *engineering* must be included as essential factors in national and international science, technology, and economic policies.

Section 33 of that Act

WOMEN IN SCIENCE

SEC. 33. The Foundation is authorized to—

(1) support activities designed to—

(A) increase the participation of women in courses of study at the undergraduate, graduate, and postgraduate levels leading to degrees in scientific and [technical] *engineering* fields;

(B) encourage women to consider and prepare for careers in science and [technology] *engineering*; or

(C) provide traineeship and fellowship opportunities for women in science and [technology] *engineering*;

(2) support programs in science, *engineering,* and mathematics in elementary and secondary schools so as to stimulate the acquisition of knowledge, skills, and information by female students and to increase female student awareness of career opportunities requiring scientific and [technical] *engineering* skills;

(3) support activities in continuing education in science and engineering which provide opportunities for women who—

(A) are in the work force, or

(B) who are not in the work force because their careers have been interrupted,

to acquire new knowledge, techniques, and skills in scientific and [technical] *engineering* fields;

(4) undertake a comprehensive research program designed to increase public undertstanding of (A) the potential contribution of women in science and [technology] *engineering* and (B) the means to facilitate the participation and advancement of women in scientific and [technical] *engineering* careers;

(5) establish a visiting women scientists *and engineers* program;

(6) support activities designed to improve the availability and quality of public information concerning the importance of the participation of women in careers in science and [technology] *engineering*;

(7) support activities of museums and science centers which demonstrate potential to interest and involve women in science and [technology] *engineering*;

(8) make grants, to be known as the National Research Opportunity Grants, to women scientists *and engineers* who (A) have received their doctorates within five years prior to the date of the award or (B) have received their doctorates, have had their careers interrupted, and are re-entering the work force within five years after such interruption;

(9) make grants to women eligible under paragraph (8) to assist such women in planning and developing a research project eligible for support under such paragraph;

(10) provide support to individuals or academic institutions for full-time or part-time visiting professorships for women in science *and engineering*; and

(11) support demonstration project activities of individuals, public agencies, and private entities designed to encourage the employment and advancement of women in science[, engineering, and technology] *and engineering*.

Section 34 of that Act

MINORITIES IN SCIENCE

SEC. 34. (a) The Foundation is authorized (1) to undertake or support a comprehensive science *and engineering* education program to increase the participation of minorities in science and [technology] *engineering* and (2) to support activities to initiate research at minority institutions.

(b) By September 30, 1981, the Director, with the advice and assistance of the Committee on Equal Opportunities in Science and [Technology] *Engineering* established in section 36, shall prepare and transmit to the Committee on Labor and Human Resources of the Senate and the Committeee on Science and Technology of the House of Representatives a report proposing a comprehensive and continuing program at the Foundation to promote the full participation of minorities in science and [technology] *engineering*. Such report shall contain budgetary and legislative recommendations for the carrying out of such program by the Foundation.

Section 36 of that Act

COMMITTEE ON EQUAL OPPORTUNITIES IN SCIENCE AND [TECHNOLOGY] *ENGINEERING*

SEC. 36. (a) There is established within the Foundation a Committee on Equal Opportunities in Science and [Technology] *Engineering* thereinafter referred to as the "Committee"). The Committee shall provide advice to the Foundation concerning (1) the implementation of the provisions of this Act and (2) other policies and activities of the Foundation to encourage full participation of women, minorities, and other groups currently underrepresented in scientific engineering[, professional, and technical] *and professional* fields.

(b) Each member of the Committee shall be appointed by the Director with the concurrence of the National Science Board. The Chairperson of the National Science Board Committee on Minorities and Women shall be an ex officio member of the Committee. Members of the Committee shall be appointed to serve for a three-year term, and may be reappointed to serve one additional term of three years.

(c) There shall be a subcommittee of the Committee which shall be known as the Subcommittee on Women in Science and [Technology] *Engineering*. The Subcommittee on Women in Science and [Technology] *Engineering* shall have responsibility for all Committee matters relating to (1) the participation in and opportunities for the education, training, and research of women in science and [technology] *engineering* and (2) the impact of science and [technology] *engineering* on women. The Subcommittee shall be composed of all the women members of the Committee and such other members of the Committee as the Committee may designate.

(d) There shall be a subcommittee of the Committee which shall be known as the Subcommittee on Minorities in Science and [Technology] *Engineering*. The Subcommittee on Minorities in Science and [Technology] *Engineering* shall have responsibility for all Committee matters relating to (1) the participating in and opportunities for education, training, and research for minorities in science and [technology] *engineering* and (2) the impact of science and [technology] *engineering* on minorities. The Subcommittee shall be composed of all minority members of the Committee and such other members of the Committee as the Committee may designate.

(e) The Committee may organize such additional standing or ad hoc subcommittees as the Committee finds appropriate.

(f) Each year the Committee shall prepare and transmit to the Director a report concerning its activities during the previous year and its proposed activities for the next year. The Director shall transmit to Congress the report, unaltered, along with comments.

Section 37 of that Act

BIENNIAL REPORT

SEC. 37. (a) * * *

(b) The report required by subsection (a) shall contain—

(1) an accounting and comparison, by sex, race, and ethnic group and by discipline, of the participation of women and men in scientific and [technical] *engineering* positions, including—

(A) the number of individuals in permanent and temporary and in full-time and part-time scientific and [technical] *engineering* positions, by appropriate level or similar category;

(B) the average salary of individuals in such scientific and [technical] *engineering* positions;

(C) the number and type of promotional opportunities realized by individuals in such scientific and [technical] *engineering* positions;

(D) the number of individuals serving as principal investigators in federally conducted or federally supported research and development; and

(E) the unemployment rate of individuals seeking scientific and [technical] *engineering* positions;

(2) an assessment, including quantitative and other data, of the proportion of women and minorities studying scientific and [technical] *engineering* fields, including mathematics and computer skills, at all educational levels; and

(3) such other data, analyses, and evaluations as the Director, acting on the advice of the Committee on Equal Opportunities in Science and [Technology] *Engineering*, determines appropriate to carry out the Foundation's functions as well as the policies and programs of this Act.

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Calendar No. 76

99TH CONGRESS
1st Session

SENATE

REPORT
99-28

PIPELINE SAFETY AUTHORIZATIONS

APRIL 15, 1985.—Ordered to be printed

Mr. DANFORTH, from the Committee on Commerce, Science, and Transportation, submitted the following

REPORT

[To accompany S. 813]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 813) to amend the Natural Gas Pipeline Safety Act of 1968 and the Hazardous Liquid Pipeline Safety Act of 1979 to authorize appropriations for fiscal years 1986 and 1987, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

PURPOSE OF BILL

It is the purpose of this bill to authorize $3,450,000 and $3,615,000 for fiscal years 1986 and 1987, respectively, to carry out the Natural Gas Pipeline Safety Act of 1968, to authorize $875,000 and $917,000 for fiscal years 1986 and 1987, respectively, to carry out the Hazardous Liquid Pipeline Safety Act of 1979; and to authorize $4,500,000 and $4,716,000 for fiscal years 1986 and 1987, respectively, to carry out the pipeline State grant-in-aid programs.

BACKGROUND AND NEEDS

The Department of Transportation (DOT) is responsible for carrying out the provisions of the Natural Gas Pipeline Safety Act of 1968 (NGPSA) and the Hazardous Liquid Pipeline Safety Act of 1979 (HLPSA). DOT's pipeline safety program is administered by the Materials Transportation Bureau (MTB) of the Research and Special Programs Administration (RSPA). Under the NGPSA and the HLPSA, DOT is responsible for developing and enforcing regulations for the safe transportation by pipeline of natural gas and

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other hazardous liquids, such as gasoline and fuel oil. It also is responsible for doing pipeline safety research, and for managing the State pipeline grant-in-aid programs.

DOT is assisted in its natural gas pipeline safety responsibilities by the 46 States, the District of Columbia, and Puerto Rico, which participate in the grant-in-aid program provided for by the NGPSA. Under this program, States that adopt DOT safety regulations governing intrastate natural gas pipelines are authorized to enforce the regulations. The States also may exercise DOT's inspection authority over interstate natural gas pipelines. The NGPSA provides that States participating in the grant-in-aid program may be reimbursed by DOT for up to 50 percent of their costs. Currently, DOT is reimbursing these States for approximately 31 percent of their costs.

The HLPSA also provides for a grant-in-aid program pursuant to which participating States may enforce any DOT safety regulations dealing with intrastate hazardous liquid pipelines. However, DOT has not yet issued rules on intrastate hazardous liquid pipelines, although a final rule is expected by May 1, 1985. To date, 17 States have passed enabling legislation that would allow them to participate in the program, and 6 others are seeking to do so.

In addition to receiving assistance from the States, DOT is aided by two technical pipeline safety advisory committees, which are mandated by the NGPSA and the HLPSA. These committees are composed of representatives of industry, government, and the public. They meet on the average once a year to evaluate proposed pipeline safety standards and to report to DOT on the standards' technical feasibility, reasonableness, and practicability.

Last year, Congress passed a 1-year authorization bill on pipeline safety. While the Senate would have preferred a 2-year bill, it agreed with the House to do a 1-year bill in order to give both the House and the Senate the opportunity to review DOT's response to a General Accounting Office (GAO) report on pipeline safety. The GAO report recommended that DOT: consider alternatives to its current pipeline program that would better align State and Federal responsibilities with funding and staff limitations; improve the efficiency and management of its inspection workforce; and improve its monitoring of the State pipeline programs.

This year, the Committee held a hearing to consider appropriate funding levels for fiscal years 1986 and 1987 to support DOT's pipeline safety program. In doing so, the Committee examined the effectiveness of the current program, and a variety of related issues. One of the areas the Committee considered was what DOT had done or was planning to do in response to the GAO report. During the hearing, DOT reported on a number of actions that it had taken or would be taking to improve its inspection coverage of pipeline operators and to refine its monitoring of State programs. Further, DOT reported that pursuant to GAO's recommendation, it had undertaken a study to examine possible additional pipeline activities to include in its program, alternative alignments of governmental responsibilities, and legislation and funding impacts of the alternatives. As a result of the hearing, the Committee determined that DOT was making a good overall effort to respond to the GAO report.

During the hearing, the Committee also examined DOT's reque that Congress merge the funding for the two grant-in-aid program on natural gas and hazardous liquids. DOT testified that it was r questing the merger, because, based on the good safety record hazardous liquid pipelines, it could not justify separate funding t cover the costs associated with the States starting up hazardou liquid pipeline programs. At the same time, it wanted to provid the States with the flexibility of using Federal grant funds for ha ardous liquid pipeline programs, if the States believe that is wa ranted. The Committee believes that DOT's request is reasonabl especially in view of the continuing budgetary pressures to reduc the Federal deficit, and the fact that funds for State hazardou liquid pipeline enforcement would not otherwise be made availabl

Legislative History

On March 28, 1985, the Surface Transportation Subcommitte held a hearing to examine the pipeline safety program and specif cally to consider the appropriate levels for both the Federal natu ral gas and hazardous liquid pipeline safety programs and th State natural gas and hazardous liquid safety enforcement grant in-aid programs. The Subcommittee heard testimony from the Ad ministrator of RSPA within DOT and representatives of the Na tional Association of Regulatory Utility Commissioners and the oi and gas pipeline industries.

On March 28, 1985, Senator Packwood introduced S. 813 o behalf of himself and Senator Ford, authorizing funds for the pipe line safety programs.

On April 2, 1985, the full Committee in open executive sessio considered S. 813. The Committee by voice vote unanimously or dered the bill favorably reported, without amendment.

Estimated Costs

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

U.S. Congress,
Congressional Budget Office,
Washington, DC, April 9, 1985.

Hon. John C. Danforth,
Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate, Washington, DC.

Dear Mr. Chairman: The Congressional Budget Office has prepared the attached cost estimate for S. 813, a bill to amend the Natural Gas Pipeline Safety Act of 1968 and the Hazardous Liquid Pipeline Act of 1979 to authorize appropriations for fiscal years 1986 and 1987, and for other purposes.

If you wish further details on this estimate, we will be pleased to provide them.

With best wishes,
Sincerely,

Rudolph G. Penner, *Director.*

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

1. Bill number: S. 813.

2. Bill title: A bill to amend the Natural Gas Pipeline Safety Act of 1968 and the Hazardous Liquid Pipeline Safety Act of 1979 to authorize appropriations for fiscal years 1986 and 1987, and for other purposes.

3. Bill status: As ordered reported by the Senate Committee on Commerce, Science and Transportation, April 2, 1985.

4. Bill purpose: S. 813 authorizes appropriations of $7.95 million for fiscal year 1986 and $8.33 million for 1987 for activities conducted under the Natural Gas Pipeline Safety Act of 1968. This bill also authorizes $875,000 for fiscal year 1986 and $917,000 for fiscal year 1987 for administration of the Hazardous Liquid Pipeline Safety Act of 1979. The bill also gives the Secretary of Transportation more flexibility in setting reporting requirements for state programs regulating intrastate pipeline transportation.

5. Estimated cost to the Federal Government:

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Authorization level	8.8	9.2			
Estimated outlays	5.7	9.1	3.2		

The costs of this bill fall within budget function 400.

Basis of estimate: For the purpose of this estimate, CBO assumed that the full amounts authorized will be appropriated prior to the beginning of each fiscal year. The authorization levels are those specified in the bill. Estimated outlays are based on recent historical spending patterns of the Hazardous Materials Transportation Bureau of the Department of Transportation, which administers these programs.

6. Estimated cost to State and local governments: S. 813 authorizes $4.5 million in fiscal year 1986 and $4.7 million in fiscal year 1987 for grants to states for the natural gas pipeline safety program. Grants may be used to cover up to 50 percent of state program costs.

The amendment concerning reporting requirements is not expected to result in any additional cost to state governments, because it is expected that the Secretary of Transportation will raise the minimum reporting threshold for accidents involving property damage above the current $5,000 per incident. As a result, state governments would be required to report fewer incidents involving property damage by intrastate pipeline systems. While this amendment could result in some savings to state governments, the savings are not expected to be significant.

7. Estimate comparison: None.

8. Previous CBO estimate: None.

9. Estimate prepared by: Heidi E. Zukoski.

10. Estimate approved by: For James L. Blum, Assistant Director for Budget Analysis.

Regulatory Impact Statement

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee reports that the legislation will have no significant regulatory impact. With respect to economic impact, the funding levels in the bill are modest and will not have a major impact on individuals, consumers or businesses. The authorization levels for the Federal natural gas and hazardous liquid pipeline programs and the State grant-in-aid programs are intended to continue and strengthen the current safety efforts. Thus, in this regard the bill will not result in an increase in the number of persons regulated or the cost of regulation to any person, nor adversely affect the privacy of any person or change existing paperwork requirements.

Section-by-Section Analysis

Section 1

This section provides an authorization for appropriations to cover the natural gas pipeline safety program. Specifically, subsection (a) authorizes $3,450,000 for fiscal year 1986 and $3,615,600 for fiscal year 1987 for the Federal program. Subsection (b) authorizes $4,500,000 for fiscal year 1986 and $4,716,000 for fiscal year 1987 for the State grant-in-aid programs.

The fiscal year 1986 authorization for the Federal program is $100,000 more that the administration's request, which assumed a 5-percent pay reduction—an assumption that the Committee is not making. The fiscal year 1987 figure represents a 4.8-percent increase over the fiscal year 1986 amount to cover inflation.

The fiscal 1986 authorization for the State grant-in-aid programs is the same as the administration's request. The authorization also provides for the merger of funding for the two State grant-in-aid programs for natural gas and hazardous liquids, as requested by DOT. The fiscal 1987 authorization represents a 4.8-percent increase over the fiscal year 1986 amount to cover inflation.

The Committee notes the request of the National Association of Regulatory Utility Commissioners (NARUC) on behalf of the States to increase the funding of the State programs to insure that the full 50 percent Federal funding level allowable under the law can be provided. While the Committee is not approving that level of increase at this time, it is providing funds to insure the current level of State participation, which the Committee strongly supports as an integral part of the pipeline safety effort. The Committee will continue to review the funding needs of this important program.

Section 2

This section provides an authorization for appropriations for the hazardous liquid pipeline safety program. Specifically, subsection (a) authorizes $875,000 for fiscal year 1986 and $917,000 for fiscal year 1987 for the Federal program.

The fiscal year 1986 authorization for the Federal program is $25,000 more than the administration's request, which assumed a 5-percent pay reduction—an assumption that the Committee is not making. The fiscal year 1987 figure represents a 4.8-percent in-

crease over the fiscal year 1986 amount to cover inflation. As indicated in the first section, hazardous liquid grant-in-aid activities would be carried on with the natural gas activities under the grant-in-aid funds authorized in the first section.

Section 3

This section amends the NGPSA and the HLPSA to change the requirement that the States report all accidents or incidents involving property damage exceeding $5,000. The change would permit the Secretary of Transportation to establish by regulation the threshold amount for reporting such accidents or incidents.

Changes in Existing Law

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in italic, existing law in which no change is proposed is shown in roman):

The Natural Gas Pipeline Safety Act of 1968

Section 5 of that Act

Sec. 5. (a) Except for section 19, and except as otherwise provided in this section, the authority of the Secretary under this Act to prescribe safety standards and enforce compliance with such standards shall not apply to intrastate pipeline transportation when the safety standards and practices applicable to same are regulated by a State agency (including a municipality) which submits to the Secretary an annual certification that such State agency (1) has regulatory jurisdiction over the safety standards and practices of such transportation; (2) has adopted, as of the date of the certification, each Federal safety standard established under this Act which is applicable to such transportation or, with respect to each such Federal safety standard established within one hundred and twenty days before the date of the certification, is taking steps pursuant to State law to adopt such standard; (3) is enforcing each such standard; (4) is encouraging and promoting programs designed to prevent damage to pipeline facilities as a consequence of demolition, excavation, tunneling, or construction activity; and (5) has the authority to require record maintenance, reporting, and inspection substantially the same as are provided under section 14 and the filing for approval of plans of inspection and maintenance described in section 13; and that the law of the State makes provision for the enforcement of the safety standards of such State agency by way of injunctive and monetary sanctions substantially the same as are provided under sections 11 (other than subsection (a)(2) thereof) and 12. Each annual certification shall include a report, in such form as the Secretary may by regulation provide, showing (i) name and address of each person subject to the safety jurisdiction of the State agency; (ii) all accidents or incidents reported during the proceeding 12 months by each such person involving personal injury requiring hospitalization, fatality, property damage exceeding [$5,000] *an amount that the Secretary establishes by regula-*

tion (whether or not sustained by a person subject to the safety jurisdiction of the State agency) and any other accident which the State agency considers significant, together with a summary of the State agency's investigation as to the cause and circumstances surrounding such accident or incident; (iii) the report maintenance, reporting, and inspection practiced by the State agency to enforce compliance with such Federal safety standards, including a detail of the number of inspections made of pipeline facilities by the State agency during the preceding twelve months; and (iv) such other information as the Secretary may require. The report included with the first annual certification need not show information unavailable at that time. If after receipt of annual certification, the Secretary determines that the State agency is not satisfactorily enforcing compliance with Federal safety standards, he may, on reasonable notice and after opportunity for hearing, reject the certification or take such other action as he deems appropriate to achieve adequate enforcement including the assertion of Federal jurisdiction. When such notice is given by the Secretary, the burden of proof shall be upon the State agency to show that it is satisfactorily enforcing compliance with Federal safety standards.

(b)–(f) * * *

Section 17 of that Act

SEC. 17. (a) For the purpose of carrying out the provisions of this Act other than provisions for which funds are authorized to be appropriated under subsection (b)), there are authorized to be appropriated—

(1) $6,200,000, for the fiscal year ending September 30, 1980;

(2) $6,900,000, for the fiscal year ending September 30, 1981; [and]

(3) $3,472,000, for the fiscal year ending September 30, 1985[.];

(4) $3,450,000 for the fiscal year ending September 30, 1986; and

(5) $3,615,600 for the fiscal year ending September 30, 1987.

(b) * * *

(c) For purposes of carrying out the Federal grants-in-aid provisions of section 5(d) of this Act (49 App. U.S.C. 1674(d)) and section 205(d) of the Hazardous Liquid Pipeline Safety Act of 1979 (49 App. U.S.C. 2004(d)), there are authorized to be appropriated—

(1) $4,500,000 for the fiscal year ending September 30, 1986; and

(2) $4,716,000 for the fiscal year ending September 30, 1987.".

THE HAZARDOUS LIQUID PIPELINE SAFETY ACT OF 1979

Section 205 of that Act

SEC. 205. (a) Except for section 215 and except as otherwise provided in this section, the authority of the Secretary under this Act to prescribe safety standards and enforce compliance with such standards shall not apply to intrastate pipeline facilities or the transportation of hazardous liquids associated with those facilities, when the safety standards and practices applicable to same are reg-

ulated by a State agency which submits to the Secretary an annual certification that such State agency—

(1) has regulatory jurisdiction over the safety standards and practices of intrastate pipeline facilities and the transportation of hazardous liquids associated with those facilities;

(2) has adopted, as of the date of the certification, each Federal safety standard established under this title which is applicable to intrastate pipeline facilities and the transportation of hazardous liquids associated with those facilities or, with respect to each such Federal safety standard established within 120 days before the date of certification, is taking steps pursuant to State law to adopt such standards;

(3) is enforcing each such standard;

(4) is encouraging and promoting programs designed to prevent damage to pipeline facilities as a consequence of demolition, excavation, tunneling, or construction activity; and

(5) has the authority to require record maintenance, reporting, and inspection substantially the same as are provided under section 211 and the filing for approval of plans of inspection and maintenance described in section 210 and that the law of the State makes provision for the enforcement of the safety standards of such State agency by way of injunctive and monetary sanctions substantially the same as are provided under sections 208 (other than subsection (a)(2) thereof) and 209.

Each annual certification shall include a report, in such form as the Secretary may by regulation provide, showing (i) name and address of each person subject to the safety jurisdiction of the State agency; (ii) all accidents or incidents reported during the preceding 12 months by each such person involving personal injury requiring hospitalization, fatality, or property damage exceeding **[**$5,000**]** *an amount that the Secretary establishes by regulation* (whether or not sustained by a person subject to the safety jurisdiction of the State agency) and any other accident which the State agency considers significant, together with a summary of the State agency's investigation as to the cause and circumstances surrounding such accident or incident; (iii) the record maintenance, reporting, and inspection practiced by the State agency to enforce compliance with such Federal safety standards, including a detail of the number of inspections made of pipeline facilities by the State agency during the preceding 12 months; and (iv) such other information as the Secretary may require. The report included with the first annual certification need not show information unavailable at that time.

(b)–(c) * * *

(d)(1) * * *

(2) Funds authorized to be appropriated by section 214 of this title *or section 17(c) of the Natural Gas Pipeline Safety Act of 1979 (49 App. U.S.C. 1674(d)(2))* shall be allocated among the several States for payments to aid in the conduct of pipeline safety programs in accordance with paragraph (1) of this section.

(3)–(4) * * *

(e)–(g) * * *

Section 214 of that Act

SEC. 214. (a) For the purpose of carrying out the provisions of this title (other than provisions for which funds are authorized to be appropriated under subsection (b)), there are authorized to be appropriated—

(1) $1,800,000, for the fiscal year ending September 30, 1980;

(2) $2,100,000, for the fiscal year ending September 30, 1981;

[and]

(3) 900,000, for the fiscal year ending September 30, 1985[.];

(4) $875,000 for the fiscal year ending September 30, 1986; and

(5) $917,000 for the fiscal year ending September 30, 1987.

(b) For the purpose of carrying out the Federal grants-in-aid provisions of section 205 of this title, there are authorized to be appropriated—

(1) $500,000, for the fiscal year ending September 30, 1980;

(2) $535,000, for the fiscal year ending September 30, 1981;

[and]

(3) $500,000, for the fiscal year ending September 30, 1985[.]; *and*

(4) such amounts as are made available pursuant to section 17(c) of the Natural Gas Pipeline Safety Act of 1968.

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